Title: Modelling of plasma-solid interaction
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Abstract: This work is devoted to computer modeling of the low-temperature argon plasma discharge. We created one basic particle model and one basic fluid model. Furthermore, we created a model of electron-electron interaction in three dimensions. This model is able to stabilize nonequilibrium electron gas in the expected equilibrium. This model was developed to investigate the influence of electron-electron scattering on the acceleration of electrons above the speed that is sufficient for excitation or ionization of neutral argon atom. At the end of this work there are results that shed a light on the importance of this interaction in comparison with the amount of fast electrons that are present in the plasma due to electric filed field.